AV Sticke version 1.0.74

Typical scenario

1) You want to go out into the field and to do some biological sampling.
a. Pre-planning to decide what attributes other than the photo logging data the field sampling are required
b. Creation or editing of the existing photolog table to meet your needs. (i.e. adding fields)
c. First, you need to synchronize the clocks on your gps, digital camera and your palm pilot.
d. At a sampling location, you log the location on the palm pilot (with attached gps). You would then take as many pictures for this area as you wanted. After finishing taking pictures, you 'click' the 'end time' button/field and save the record on the palm.
e. Go to another sampling location and repeat step d. as needed
f. Once back from the field or perhaps while still in the field if you have a laptop; hotsync the palm pilot
g. Copy the digital images to the laptop/pc or have the media available for access by the laptop/pc (eg. compact flash media adapter to pcmcia card)
h. Use the AV Sticke extension to process the data into a shapefile and to hotlink the images to the proper point feature.
i. Use the AV Xlinx extension to view the hotlinked images.

Comments:

This is meant for simple data collection. "Simple" means data entry to a single table per shapefile. One to one relationship.

Users can collect attributes only, photo logging data only, OR both.

Users can create their own data table(s). There are only a few restrictions relating to field naming conventions etc....

If a user wants a photo logging database, he/she is free to add any fields they want; however, there are some required fields in order for the table to be processed by the extension as a "photo logging" table.

Users can create multiple tables, but each table results in a separate shapefile (one to one). Each table can be a separate type of sampling for example: vege plots, oiled bird location, hobo temp location, etc...

Subsequent new data can be created in a new shapefile or appended to the existing "survey project" shapefile.

The extension can process data from multiple surveyors or survey teams each with their own palm pilot(s)

As with other extensions like the image catalog extension, a path setting can be set so that a centralized shapefile can be maintained over the network.

If a centralized shapefile is shared over the network, then each surveyor / team can hotsync their palm pilot on their own individual computer OR on a centralized single computer.

Backups of the incoming palm data are stored on the computer on which the hotsync has taken place. The backups are store to the specific palm users default palm directory.

The AV Sticke extension makes calls to the AV Xlinx extension to accomplish the hotlinking of images to the shapefile features. Therefore, you can use the created shapefile and Xlinx extension in ArcView to view the results. AV Sticke is not needed at this point.

The photo image files are automatically copied to the "project" users directory and into one of two sub-directory structures. The first is a monthly sub-directory structure where in a given year there could be 12 sub-directories representing each month. For example, the sub-directory named 200105 would contain all photo files taken in the month of July and so on. For example, my photos for the year 2001 for the month of September would be copied to the sub-directory, "D:\data\Photolog\ioshim\200109". If lkonde were another user, all her photographs taken on June 21st 2000 would be copied to the sub-directory, "D:\data\Photolog\lkonde\200006".

The second is a spatial index sub-directory structure. This is based on a user-selected polygon shapefile. The sub-directories are indexed on each unique polygon and its key field values. For example, if I could choose as my spatial index, the county polygon shapefile for California with the key field containing the unique county abbreviation. If a photo image's location "fell into" the county of Sacramento, it would be placed into a sub-directory called, "sac". All my photos that I took while in Sacramento county would be copied to the "sac" sub-directory, "D:\data\Photolog\ioshim\sac". In this case, if lkonde were another user, all her photographs taken within Sacramento county would be copied to the sub-directory, "D:\data\Photolog\lkonde\sac".

In addition, the photo files are automatically renamed with a unique filename. This naming convention also allows a human readable re association of the photos with the location should it be needed.

Naming convention:
<Feature ID> + <date> + <time> + <photo serial number>

For example, 87_20010821_095334_001.jpg
The feature ID is created uniquely each time a new shape record is added to the centralized shapefile. The date and time portions come from the date and time of the photo.

Finally, FYI: there is a CE type rendition of this extension called, Rapix that I made for Resource Assessment Program at CA DFG. It is similar to AV Sticke, but is more specific to the resource assessment program needs. Most notably, their use of Trimble GPS units (post differential) as opposed to Garmins. Rapix also makes calls to the AV Xlinx extension so the resultant shapefile is usable with AV Xlinx as well.